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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,176	12/28/1999	ALAN STUART FELDMAN	66180.0400/H	9679

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EXAMINER
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ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/473,176

Applicant(s)

FELDMAN, ALAN STUART

Examiner

Sikha Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 60-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The Amendment, filed on July 30, 2003 has been entered and is acknowledged by the Examiner.

#### ***Claim Objections***

Claim 60 is objected to because of the following informalities:

There is no disclosure of "n conjoined channel segments" and "channels configured along m parallel paths".

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 60 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation comprising 'enclosure having a plurality of channels defined therein, wherein each channel comprises n conjoined channel segments' was not described in the original disclosure. In specification, page 8 lines 1-6 (Fig. 4) a partitioned channel 116 is configured in two conjoined channel segments 116A and 116 B. It is disclosed (page 8 lines 20,21) that the channel 116

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may be divided into channel segments in any suitable manner and configuration. Fig. 5 shows four electrodes form three conjoined channel segments, Fig. 7 shows seven electrodes form six conjoined channel segments. In specification (page 10 lines 3 – 13) it is disclosed that diffuse channel 1212 (Fig. 12) may be formed with any number of segments, channel 1310 (Fig. 13) comprises two sets of two conjoined channel segments, channel 1408 ( Fig. 14) comprises two conjoined sets of two parallel channel segments. The plurality of channels having n conjoined channel segments was not described in the specification. For examination purpose, the limitation is considered as comprising a channel having n conjoined channel segments.

Claims 61-67 are rejected under 35 U.S.C. 112, first paragraph because of their dependency status from claim 60.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 60 - 62, 64 - 66 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,343,116 to Winsor ('116).

Referring to claim 60 Winsor discloses (column 2 lines 48-62 Fig. 1) a planar fluorescent lamp comprising an enclosure formed of a pair of side walls 18 and 20 and a pair of end walls 14 and 16. A plurality of divider walls 26 extends from the sidewall 14 towards the sidewall 16 but do not touch it. Similarly the divider walls 28 extend from

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the sidewall 16 towards the sidewall 14 but do not contact it. These divider walls create configuration of conjoined channel segments, each channel segment having parallel paths with at least one common end. A plurality of electrodes (38a- 38c, 40a- 40c Fig. 4) associated with parallel paths is positioned at the common end of each parallel path (column 3 lines 24-33).

Regarding claim 61 Winsor discloses (column 2 lines 60,61) the interior walls 26,28 inside the enclosure defining the channel segment through the discharge chamber.

Regarding claim 62, Winsor discloses (column 3 lines 39-41) a reflective film applied to the bottom of the planar fluorescent lamp to increase the light output.

Regarding claim 64 Winsor discloses the fluorescent lamp further includes a phosphor layer within the sealed chamber such that the UV radiation emitted by plasma arc directly impinges on the phosphor layer(column 8 lines 67,68, column 9 lines 1,2)

Referring to claims 65 and 66 Winsor discloses (column 2 lines 60,61) that the plurality of the divider walls in the flat (planar) fluorescent lamp defines a serpentine channel (path) through the discharge chamber.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 63 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,343,116 to Winsor in view of U. S. Patent 6,218,776 to Cull et al.

Regarding claim 63 Winsor does not exemplify the reflective material comprising aluminum and ceramic.

Cull in analogous art of flat fluorescent lamp discloses (column 6 lines 55,56, claim 20) reflective material selected from a group consisting of aluminum and ceramics. It is well known in the art to use aluminum and ceramics as reflective material for their good reflecting property.

Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to specify the reflective material of the enclosure of Winsor from a group consisting of aluminum and ceramics as taught by Cull et al. for their reflecting property enhancing the brightness of the lamp.

Regarding claim 67 Winsor ('116) does not disclose the portion of the channel formed by the divider walls having asymmetric cross section.

Cull et al. disclose (column 4 lines 9-20) in Figs. 3D-E the diffuse channels having cross section that is asymmetrical and a channel wall formed such that the top portion tapers inward toward the diffuse channel cavity. It is further noted that this type of design yields a concentrated cone of light corresponding to a desired range of viewable angles.

Therefore it would have been obvious to one having ordinary skill in the art at the time of invention to modify the serpentine channels of flat lamp of Winsor by the one

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having asymmetrical cross section as taught by Cull et al. for yielding a concentrated cone of light corresponding to a desired range of viewable angles.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.

Sikha Roy  
Patent Examiner  
Art Unit 2879



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